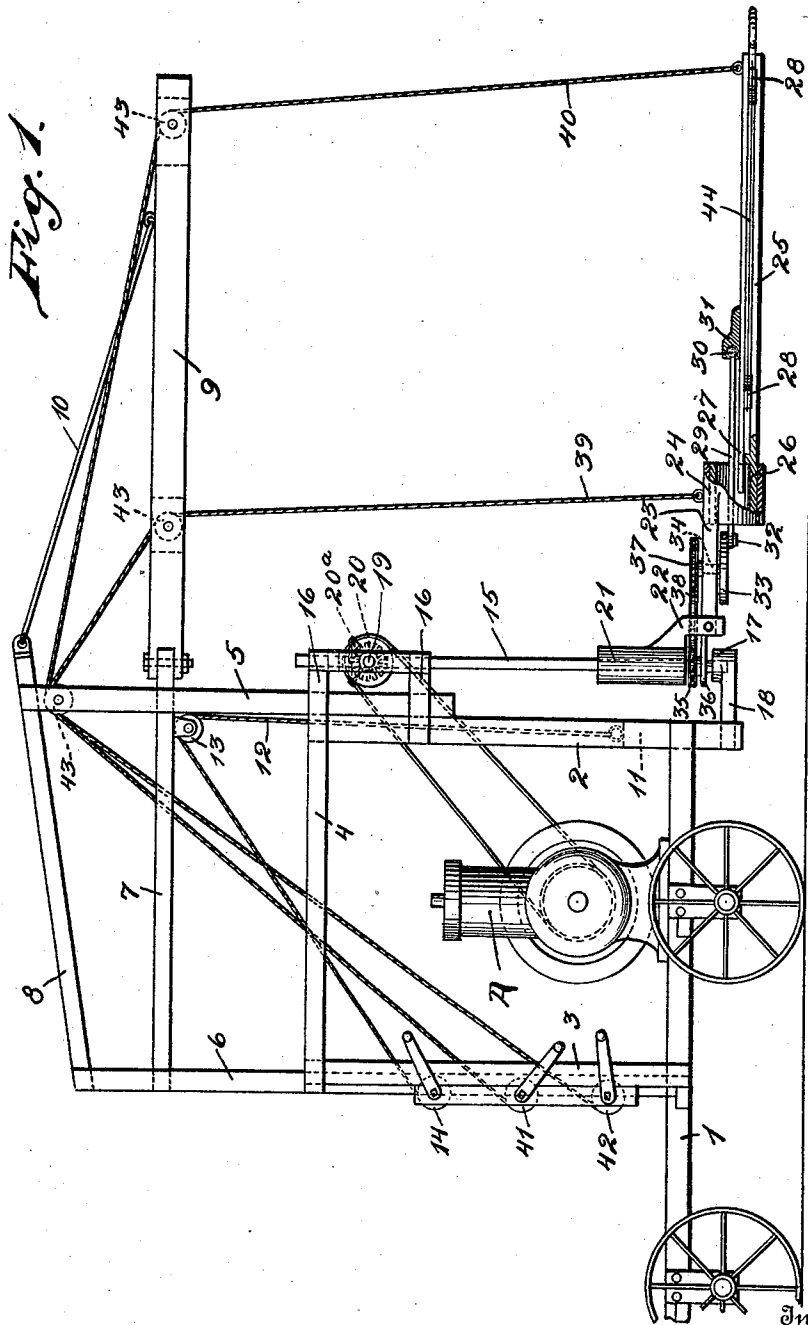


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SAWING MACHINE.
APPLICATION FILED NOV. 7, 1910.

Patented July 4, 1911.

2 SHEETS-SHEET 1.



Inventor

Witnesses

J. Milton Jester.
D. A. Gouwick, Jr.

William P. Keltner
By D. A. Gouwick
Attorney

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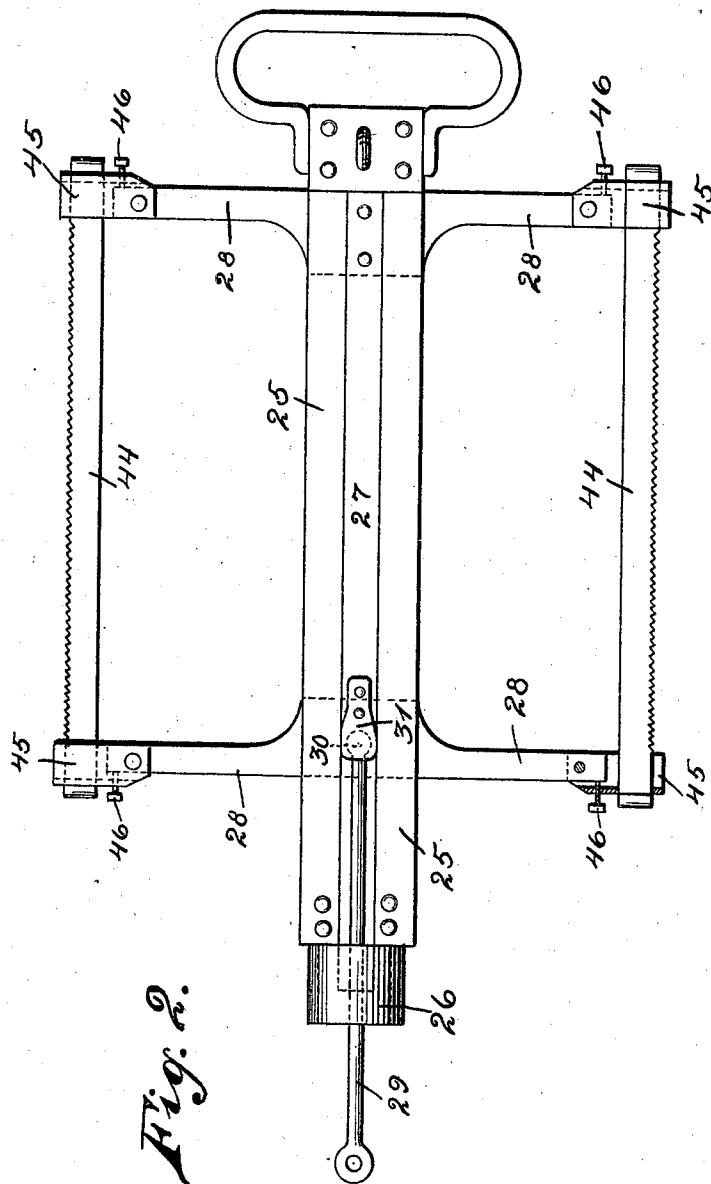


Fig. 2.

Inventor

Witnesses

Milton Jester.
V. Randolph Jr.

William P. Keltner

By

D. A. Gaurick

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM P. KELTNER, OF SPRINGFIELD, MISSOURI.

SAWING-MACHINE.

996,722.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed November 7, 1910. Serial No. 590,987.

To all whom it may concern:

Be it known that I, WILLIAM P. KELTNER, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Sawing-Machines, of which the following is a specification.

My invention relates to machines for felling timber, and has for its object the provision of a machine mounted on a wheeled truck carrying a suitable steam or other power engine that is geared to a reciprocating saw frame carrying a saw blade. The saw frame is mounted so that it is capable of adjustment vertically as well as being swung axially to admit of sawing on planes at an angle to the horizontal.

My invention will be described in detail hereinafter and illustrated in the accompanying drawings in which—

Figure 1 is a side view of my improved sawing machine, and Fig. 2, a top plan view of the saw frame.

In the drawings similar reference characters indicate corresponding parts in both views.

1 indicates a wheeled truck on which is erected frames 2 and 3 connected by a horizontal beam 4. Frame 2, on the front end of the truck, has a mast 5 erected thereon and frame 3 another mast 6 and connected by cross braces 7 and 8 to mast 5.

9 indicates a boom pivotally secured to the end of cross brace 7 and having its outer end supported by a rod, or its equivalent, 10 secured to the end of brace 8.

11 indicates a frame slidably mounted in frame 2, and 12 a flexible member, such as a chain or cable, secured to frame 11, and passing over pulley 13 is secured to roller 14 journaled on frame 3.

15 indicates a vertical shaft rotatably and slidably mounted in arms 16, extending from frame 2, and engaging a socket 17 in an arm 18 extending from frame 11, said shaft being actuated by means of a horizontal shaft 19, driven by a motor A mounted on the truck 1.

20 indicates a beveled gear wheel on shaft 19 that meshes with beveled gear wheel 20^a splined on shaft 15.

21 indicates a sleeve slidably and rota-

tably mounted on shaft 15 and having a downwardly extended, bifurcated arm 22 to which is pivotally secured a beam 23 having a tubular bearing 24 on its outer end.

The saw carriage consists of a frame 25 having a tubular bearing 26 thereon that is rotatably mounted in bearing 24.

27 indicates a saw beam slidably mounted in frame 25 and having laterally extending arms 28 secured thereto to which are secured the saw blades as hereinafter stated. Beam 27 is reciprocated by pitman 29 having a ball 30 on one end that engages a socket 31 on said beam 27, the other end of the pitman being pivotally secured to a crank pin 32 on disk 33 secured to stub shaft 34 journaled on beam 23.

35 indicates a sprocket wheel splined on shaft 15 and engaged by an arm 36 extending from bifurcated arm 22, 37 a sprocket wheel secured to stud shaft 34, and 38 a chain geared to sprocket wheels 35 and 37.

It will be apparent from this construction that power is transmitted from vertical shaft 15 to saw beam 27 through chain and sprocket gearing 35, 37 and 38, stud shaft 34 and pitman 29. Furthermore it will be understood that the saw carriage may be turned so as to saw on a horizontal or vertical plane, or at any angle therebetween, the ball and socket connection between the pitman 29 and beam 27 permitting this adjustment without impairing the operation of the saw carriage.

39 and 40 indicate chains or cables secured to the beam 23 and saw frame 25, respectively and to windlass rollers 41 and 42 respectively, said chains or cables being geared to pulleys or sheaves 43 mounted on mast 5 and boom 9. This construction admits of raising the beam and saw frame separately or together as the rollers 41 and 42 may be operated singly or simultaneously.

When it is desired to move the machine the frame 11 may be raised by means of chain or cable 12 and roller 14 to prevent injury to the lower journal of shaft 15 by stumps or other obstructions, said shaft freely sliding in beveled gear wheel 20^a when moved longitudinally.

The saw blades 44 are secured on arms 28 by means of clamps 45 pivotally secured to the ends of said arms, said blades being held

in position by means of set screws 46 engaging said clamps and the ends of the arms.

Having thus described my invention what I claim is—

5 1. In a sawing machine, a wheeled truck, a vertical shaft journaled on the truck and suitably actuated, a sleeve slidably mounted on the shaft, a saw frame adjustably secured to said sleeve, and gearing connecting the shaft and saw frame to reciprocate the latter.

2. In a sawing machine, a wheeled truck, a vertical shaft journaled on the truck, and suitably actuated, a sleeve slidably mounted on the shaft, an arm pivotally secured to said sleeve and having a tubular journal on its free end, a reciprocating saw frame rotatably mounted in said tubular journal, and gearing connecting the vertical shaft and the saw frame.

3. In a sawing machine, a wheeled truck, upright frames mounted on said truck, a vertical shaft journaled on one of said upright frames, rollers journaled on the other upright frame, a sleeve slidably mounted on said vertical shaft, a saw frame adjustably mounted on said sleeve, gearing connecting said shaft and saw frame to reciprocate the

latter and flexible members secured to said saw frame and mounted on the rollers. 30

4. A sawing machine comprising a wheeled truck, upright frames mounted on said truck, a sliding frame mounted in one of said upright frames, a vertical shaft journaled in said upright frame and on the sliding frame, said shaft sliding in the upright frame, windlass rollers journaled in the other frame, a sleeve slidably mounted on the shaft aforesaid, an arm pivotally secured to said sleeve, a tubular journal on the end of said arm, a frame rotatably mounted in said tubular journal, a beam slidably mounted on the last mentioned frame, gearing connecting the vertical shaft aforesaid and the beam to reciprocate the latter, arms secured to said beam to receive saw blades, and flexible members secured to the movable parts aforesaid and to the rollers. 45

In testimony whereof I hereto affix my signature in the presence of two witnesses. 50

WILLIAM P. KELTNER.

Witnesses:

ED. C. BAUMANN, Jr.,
M. MILLER.